HOME TASK [3]

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ME-15-C

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Q1)

```cpp
//Q:1 Write a C++ program to print the total number of populations in Punjab, Sindh, KPK, and Balochistan using a switch case.
#include <iostream>
using namespace std;

int main() {
    int Punjab, Sindh, Balochistan, KPK;

    Punjab = 127474000;
    Sindh = 54858515;
    Balochistan = 20037659;
    KPK = 39372462;

    cout << "Enter a number to get information about people:" << endl;
    int n;
    cout << "Enter 1 for Punjab" << endl;
    cout << "Enter 2 for Sindh" << endl;
    cout << "Enter 3 for Balochistan" << endl; // Fixed a single quote that should be a semicolon
    cout << "Enter 4 for KPK" << endl;
    cin >> n;

    switch (n) {
        case 1:
            cout << "Population of Punjab: " << Punjab << endl;
            break;
        case 2:
            cout << "Population of Sindh: " << Sindh << endl;
            break;
        case 3:
            cout << "Population of Balochistan: " << Balochistan << endl;
            break;
        case 4:
            cout << "Population of KPK: " << KPK << endl;
            break;
        default:
            cout << "Invalid input" << endl;
            break;
    }
    return 0;
}
```

```
Enter a number to get information about people:
Enter 1 for Punjab
Enter 2 for Sindh
Enter 3 for Balochistan
Enter 4 for KPK
1
Population of Punjab: 127474000

Process returned 0 (0x0)   execution time : 3.443 s
Press any key to continue.
```
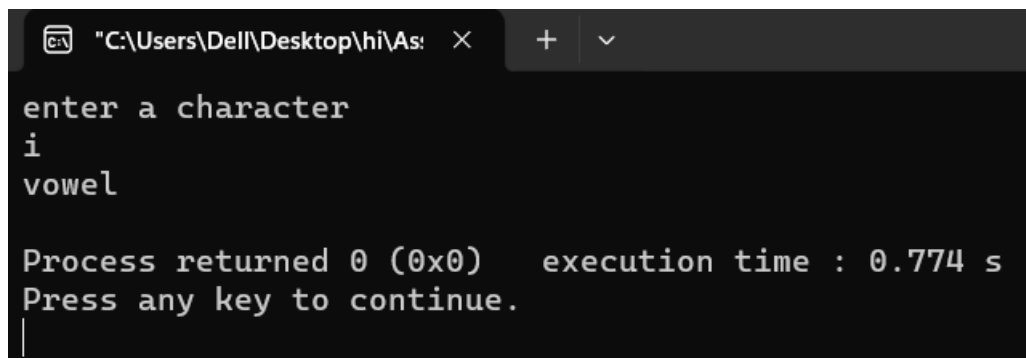
```
Enter a number to get information about people:
Enter 1 for Punjab
Enter 2 for Sindh
Enter 3 for Balochistan
Enter 4 for KPK
2
Population of Sindh: 54858515

Process returned 0 (0x0)   execution time : 2.063 s
Press any key to continue.
```

```
Enter a number to get information about people:
Enter 1 for Punjab
Enter 2 for Sindh
Enter 3 for Balochistan
Enter 4 for KPK
3
Population of Balochistan: 20037659

Process returned 0 (0x0)   execution time : 1.860 s
Press any key to continue.
```
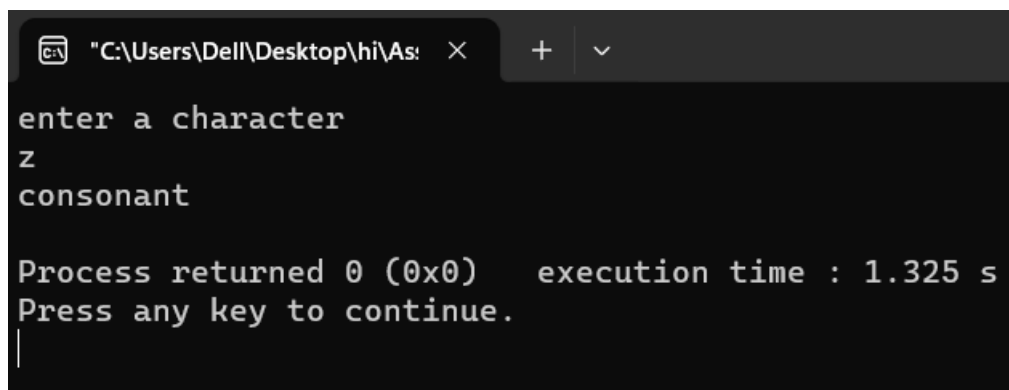
```
Enter a number to get information about people:
Enter 1 for Punjab
Enter 2 for Sindh
Enter 3 for Balochistan
Enter 4 for KPK
4
Population of KPK: 39372462

Process returned 0 (0x0)   execution time : 1.733 s
Press any key to continue.
```

Q2)

```cpp
// Q 2) Write a C++ program to check whether an alphabet is a vowel or consonant using a switch case.

#include <iostream>
using namespace std;
int main(){
char a;
 cout<<"enter a character"<<endl;
 cin>>a;
 switch(a)
 {
     case 'a': cout<<"vowel"<<endl;
     break;
     case 'e': cout<<"vowel"<<endl;
     break;
     case 'i': cout<<"vowel"<<endl;
     break;
     case 'o': cout<<"vowel"<<endl;
     break;
     case 'u': cout<<"vowel"<<endl;
     break;

     default:
         cout<<"not vowel"<<endl;


 }
}
```

```
"C:\Users\Dell\Desktop\hi\Ass    ✕     +    ⌄

enter a character
i
vowel

Process returned 0 (0x0)    execution time : 0.774 s
Press any key to continue.
```

```
"C:\Users\Dell\Desktop\hi\Ass    ✕     +    ⌄

enter a character
z
consonant

Process returned 0 (0x0)    execution time : 1.325 s
Press any key to continue.
```
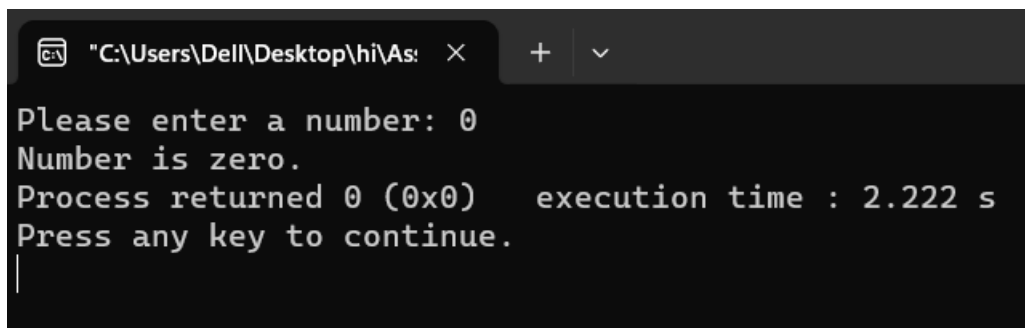
Q3)
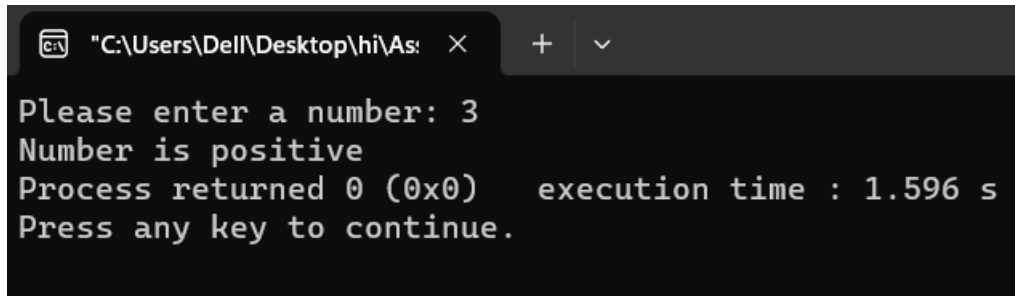
```cpp
//Q3) Write a C++ program to check whether a number is positive, negative, or zero using a switch case.
#include<iostream>
using namespace std;

int main(){
    int num;
    cout << "Please enter a number: ";
    cin >> num;
    switch(num<0){
    case 1:
        cout << "Number is negative" << endl;
        break;
    default:
        switch(num>0){
    case 1:
        cout << "Number is positive";
        break;
    default:
        cout << "Number is zero.";
        break;
        }

    }
    return 0;
}
```
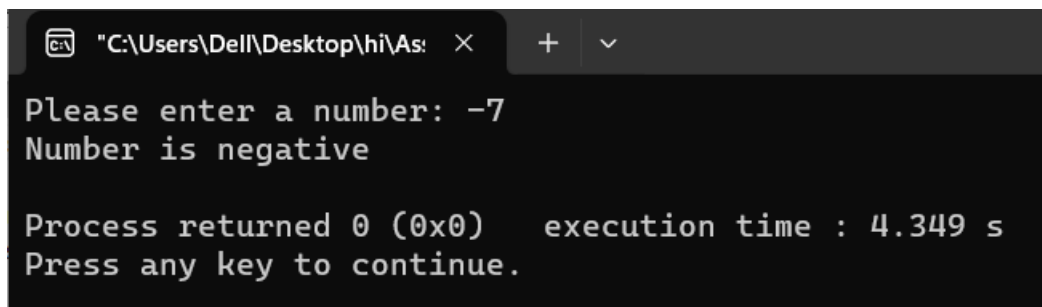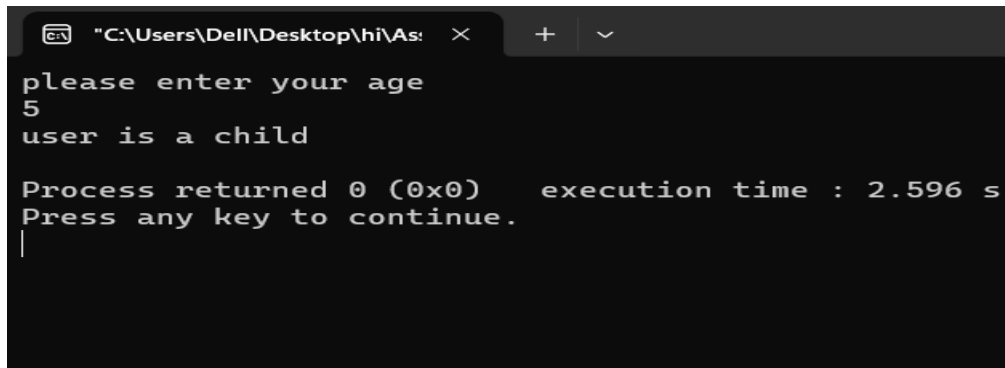
Q4)

```cpp
//Q4) Write a C++ to find out whether a person is an adult, teenager, or child using nested if-else.

#include <iostream>
using namespace std;

int main() {
    int age;
    cout<<"please enter your age"<<endl;
    cin>>age;

    if(age>=13 && age<=19){
        cout<<"User is a teenager"<<endl;

    }
    else if (age>19){
        cout<<"user is an adult"<<endl;

    }
    else{
        cout<<"user is a child"<<endl;
    }


    return 0;
}
```
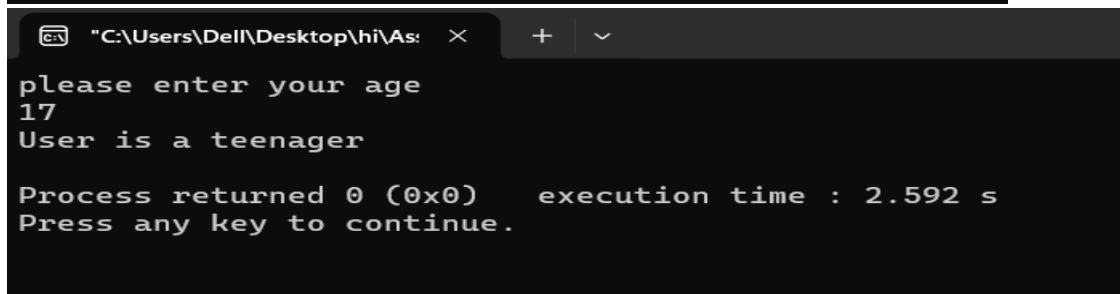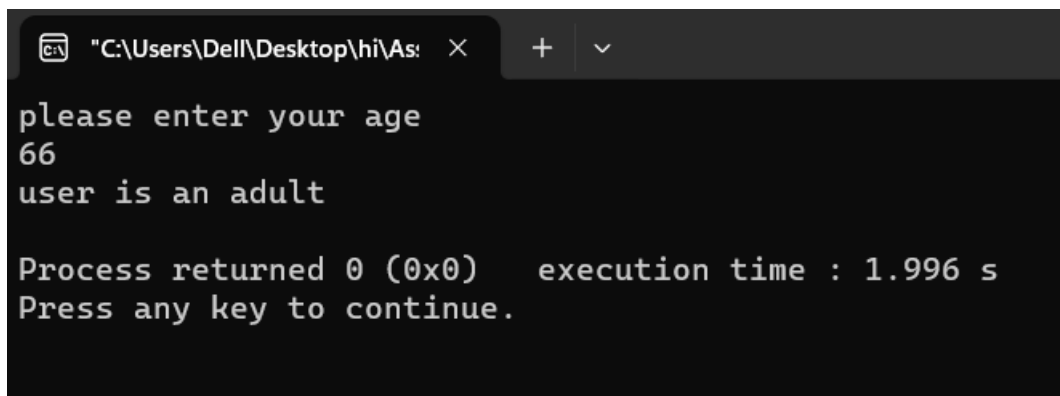
```
"C:\Users\Dell\Desktop\hi\As:    ×     +    ∨

please enter your age
5
user is a child

Process returned 0 (0x0)    execution time : 2.596 s
Press any key to continue.
```

```
"C:\Users\Dell\Desktop\hi\As:    ×     +    ∨

please enter your age
17
User is a teenager

Process returned 0 (0x0)    execution time : 2.592 s
Press any key to continue.
```

```
"C:\Users\Dell\Desktop\hi\As:    ×     +    ∨

please enter your age
66
user is an adult

Process returned 0 (0x0)    execution time : 1.996 s
Press any key to continue.
```

Q5)

```cpp
//Q5) Write a C++ program that takes three number from the user and find the greatest number out of the three numbers using nested if-else statements.

#include <iostream>
using namespace std;

int main() {
    int num1, num2, num3;

    cout << "Enter the first number: ";
    cin >> num1;

    cout << "Enter the second number: ";
    cin >> num2;

    cout << "Enter the third number: ";
    cin >> num3;

    if (num1 > num2 && num1 > num3) {
        cout << "num1 is the greatest number" << endl;
    }
    else if (num2 > num1 && num2 > num3) {
        cout << "num2 is the greatest number" << endl;
    }
    else {
        cout << "num3 is the greatest" << endl;
    }

    return 0;
}
```

```
"C:\Users\Dell\Desktop\hi\As    X    +    v

Enter the first number: 4
Enter the second number: 5
Enter the third number: 6
num3 is the greatest

Process returned 0 (0x0)    execution time : 3.481 s
Press any key to continue.
```

Q6)

```cpp
//Q6) Write a C++ program to check whether the alphabet entered by the user is Vowel or Consonant using nested if-else.

#include <iostream>
using namespace std;

int main() {
    char ch;

    cout << "Enter an alphabet in lowercase: ";
    cin >> ch;

    if (ch >= 'a' && ch <= 'z') {
        if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u') {
            cout << ch << " is a vowel." << endl;
        } else {
            cout << ch << " is a consonant." << endl;
        }
    } else {
        cout << "Invalid input. Please enter a lowercase alphabet." << endl;
    }

    return 0;
}
```
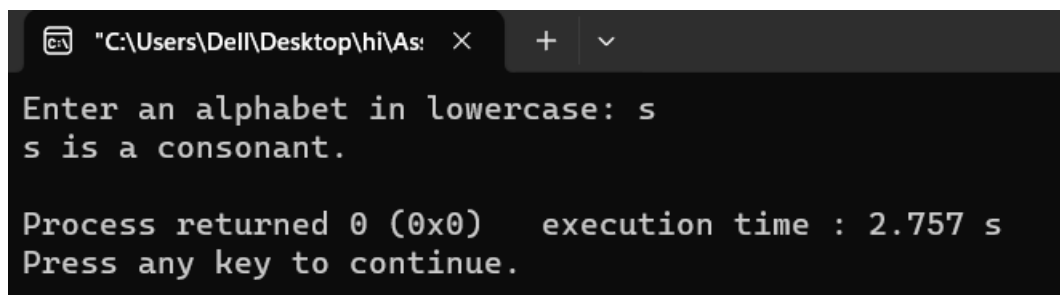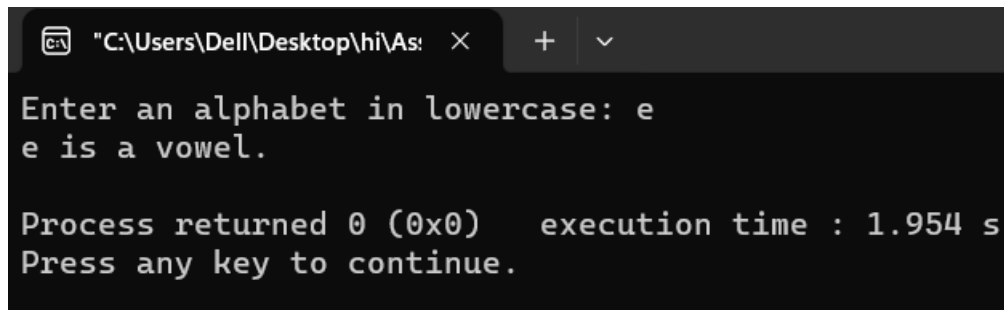
```
"C:\Users\Dell\Desktop\hi\As:    X      +    ∨

Enter an alphabet in lowercase: s
s is a consonant.

Process returned 0 (0x0)    execution time : 2.757 s
Press any key to continue.
```

```
"C:\Users\Dell\Desktop\hi\As:    X      +    ∨

Enter an alphabet in lowercase: e
e is a vowel.

Process returned 0 (0x0)    execution time : 1.954 s
Press any key to continue.
```